

REMARKS

An Office Action was mailed August 8, 2007. This response is timely. Any fee due with this paper, including any necessary extension fees, may be charged on Deposit Account 50-1290. A refund may be made to Deposit Account 50-1290.

Summary

Claims 1-18 are pending, of which claim 1 is the sole independent claim.

By the foregoing, independent claim 1 is amended and claim 2 is cancelled. No new matter has been added.

Rejections under 35 U.S.C. §102(b)

Independent claim 1 and dependent claims 2, 4, and 6-10 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,391,132 to Egami et al.

As had been previously noted, the presently claimed invention is a module for heating intake gases in internal combustion engine. As taught in the specification, prior art heaters did not incorporate two important aspects:

- (1) the ability to determine the temperature of the airflow to optimize engine performance and
- (2) means for utilizing a more cost-effective plastic manifold in the air flow by controlling temperatures.

The presently claimed invention now recites that “*the power control circuit comprises a control logic (8) to which is connected a single temperature sensor (3), and at least one power switch (6) which controls the heating element (1)*” Egami, or any other cited art, alone or in combination with Egami, do not teach, disclose, or suggest the claimed invention.

Egami teaches at col. 2, lines 39 et al., comprises “*measuring tube (9) contains therein an electric heater (10) of platinum resistance wire [...], a first temperature dependent resistor (11)*

of platinum resistance wire in proximity to and downstream of the electric heater (10), and a second temperature dependent resistor (12) of platinum resistance wire disposed a little distant from and upstream of the electric heater (10)".

At col. 2, lines 61-66, Egami teaches that "*the electric heater (10), the first and second temperature dependent resistors (11) and (12) are connected to a measuring circuit (15), which measures the flow rate of the intake air in response to the output signals of the first and second temperature dependent resistors and produces an electric signal associated with the flow rate.*" Emphasis added.

In other words, Egami teaches using two temperature monitors and producing an electric control signal associated with the flow rate from both of these.

The presently claimed invention seeks to avoid having temperatures beyond excess in order to avoid destroying the plastic manifold. This risk is minimized by implementing a temperature control as described. The claimed module comprises at least one heating resistance element which is controlled via a control logic circuit connected to a single temperature sensor.

In this manner, the temperature may be more directly and efficiently controlled than the cumbersome structure of Egami. In fact, Egami teaches away as discussed above, in that a resistance heater and two or more temperature measurements are utilized as discussed above.

All dependent claims are allowable for at least the same reasons as the independent claim from which they depend.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

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Respectfully submitted,

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